

REMARKS

Initially, Applicants would like to express their appreciation to the Examiner for the detailed Official Action provided on August 6, 2004. Further, Applicants acknowledge with appreciation the indication that the traverse of the objection to the drawings is acknowledged on page 2 of the Official Action, and that claims 2-16 and 18-32 contain allowable matter on page 6 of the Official Action.

Upon entry of the present amendments, the specification (page 7, lines 7-9, and page 16, lines 15-23) will have been amended according to the Examiner's suggestion, claims 1 and 17 will have been amended and submitted for consideration by the Examiner. Further, claims 15 and 31 will also have been amended to place them in better form for allowance. In view of the herein contained amendments and remarks, Applicants respectfully request reconsideration and withdrawal of each of the outstanding rejections set forth in the above-mentioned Official Action, together with an indication of the allowability of all of the claims pending in the present application.

On page 2 of the Official Action, amendment of the disclosure with respect to the incorporation of essential material by reference to a foreign application was required. According to the requirement, Applicants have deleted the phrase regarding reference to a foreign application in this response. Therefore, reconsideration is respectfully requested regarding this matter. This deletion

renders the need for further amendment of the specification or for a declaration moot.

On page 2 of the Official Action, the disclosure was objected to because "23" in line 21 on page 16 should read as ---"32"---. Applicants agree that the reference, which was pointed out by the Examiner, was not appropriate, and have corrected the disclosure so that the reference is now correct. Applicants have amended "display-use scale" to "dithered gray scale". As will be set forth below, one aspect of the present invention is to selectively convert the input signal into either one of the first gray scale level or the second scale level. Due to this amendment, it becomes clearer that selection of one of two gray scale levels depends on the supplied gray scale level. As described in the amended paragraph and Table 1, display-use gray scale level is selected, e.g. when the supplied gray scale level (SGSL) is 20. On the contrary, dithered gray scale level (not display-use scale level) is selected when SGSL is 25.

Further, on page 3 of the Official Action, claims 1 and 17 were objected to because of the informalities regarding a term, "emit". In this regard, Applicants have inserted the term "light", which was suggested by the Examiner, after a second occurrence of "emit" in line 3 of claims 1 and 17. Accordingly, Applicants respectfully submit that these objections have been overcome, and withdrawal thereof is requested.

On page 3 of the Official Action, claims 1 and 17 were rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over OTOBE et al. (US 6,144,364). Applicants respectfully traverse this rejection and assert that the rejection is improper for reasons at least as set forth in the following remarks.

Initially, Applicants submit that one of features of the present invention is in that the converter selectively converts an input signal into either one of two gray scale levels (first and second). This feature is recited in claim 1 as "a converter for selectively converting the gray scale level of the pixel to one gray scale level in one of a first gray scale group and one gray scale level in a second gray scale group, ..." in lines 5-7. In claim 17, the same feature is recited as "selectively converting a gray scale level of ..." in lines 5-7. Further, in the specification, in the paragraph beginning at page 16, line 15, Applicants disclose that a display-use gray scale level varies selectively based on a supplied gray scale level.

... For example, when the supplied gray scale level is 20, display-use gray scale level of 15 is selected. When the supplied gray scale level is 25, display-use gray scale level of 23 is selected.

Applicants further submit that the above feature is clearly recited in claims 1 and 17, for example, " a converter for selectively converting the gray scale level of the pixel to one gray scale level in one of a first gray scale group and one gray scale level in a second gray scale group, ..."(emphasis added) in claim 1. However, in order to clarify the feature, Applicants have further amended claims 1 and 17 to change "and" to "or" in this regard.

OBOBE et al. fail to disclose the features. Claimed combination of OBOBE et al. discloses a device that separates or splits (not converts) an input signal (input n-bits) into upper and lower bits (see Fig. 20, and lines 8 to 28 in column 19 of OBOBE et al.). Therefore, OBOBE et al. fail to disclose the "selectively converting" the input signal into one of the first gray scale level or the second gray scale level as the present invention recites in the claims. Further, Applicants submit that, in OBOBE et al., there is no teaching or suggestion to selectively convert an input signal into one of two different gray scale levels. Therefore, Applicants respectfully submit that the rejections of claims 1 and 17 under 35 U.S.C. 102(e) or 103(a) are improper at least for the above-mentioned reasons.

Applicants also submit that dependent claims 2-16 and 18-32 are at least patentable due to their respective dependencies from claim 1 and claim 17, for the reasons noted above, and for reciting additional features of the invention. These claims are also separately patentable over the prior art of record at least for the reasons indicated by the Examiner.

As mentioned above, the rejection of claims 1 and 17 is not proper, therefore, Applicants respectfully request reconsideration and withdrawal of the rejections, and early indication of the allowance of these claims.

Comments on Reasons for Allowability

In regard to the Examiner's indication of allowance subject matter in claims 2-16 and 18-32 on page 9 of the Official Action, Applicants do not disagree with the Examiner's indication that features of these claims are neither shown nor suggested by the prior art of record. However, Applicants wish to make clear that the claims in the present application recite a combination of features, and that the patentability of these claims is also based on the totality of the features recited therein, which define over the prior art. Thus, the reasons for allowance should not be limited to those mentioned by the Examiner.

SUMMARY AND CONCLUSION

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so. Applicants have pointed out the specific language of Applicants' claims that define over the references of record and respectfully request an indication to such effect, in due course.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions or comments regarding this Response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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